UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARES Washington, D.C. 20231

NOTICE OF ALLOWANCE AND FEE(S) DUE

24998	7590 02/04/2003		_		
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 2101 L STREET NW WASHINGTON, DC 20037-1526				EXAMINER HASAN, MOHAMMED A	
WASHINGTON,	DC 20037-1320		Γ	ART UNIT	CLASS-SUBCLASS
				2873	359-685000
	/ .		· D	ATE MAILED: 02/04/2003	
APPLICATION NO.	FILING DATE	FIRST NA	MED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,793	11/20/2001	Kazı	iyasu Ohashi	R2180.0113/P113	9125
TITLE OF INVENTION:	DOWNSIZE, HIGH PERF	DRMANCE, AND WIDE RAI	NGE MAGNIFICATION ZOOM	1 LENS AND CAMERA APPA	ARATUS
APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1300	\$300	\$1600	05/05/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>, THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE

Commissioner for Patents Washington, D.C. 20231

(703)746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up	with any	corrections or use Block 1)

24998

7590

02/04/2003

DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP 2101 L STREET NW **WASHINGTON, DC 20037-1526**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name)	
(Signature)	
(Date)	

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988.793	11/20/2001	Kazuyasu Ohashi	R2180.0113/P113	9125

TITLE OF INVENTION: DOWNSIZE, HIGH PERFORMANCE, AND WIDE RANGE MAGNIFICATION ZOOM LENS AND CAMERA APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	. NO	\$1300	\$300	\$1600	05/05/2003
EXAMI	NER	ART UNIT	CLASS-SUBCLASS	•	
HASAN, MOH	AMMED A	2873	359-685000		
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			2. For printing on the patent from the names of up to 3 registered	patent attorneys	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.			or agents OR, alternatively, (2) single firm (having as a mem attorney or agent) and the nat	ber a registered	
☐ "Fee Address" indicati PTO/SB/47; Rev 03-02 o Number is required.	on (or "Fee Address" Indica or more recent) attached. Us	tion form e of a Customer	registered patent attorneys or ag is listed, no name will be printed.	ents. If no name	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category of	or categories (will not be printed on the patent)	individual	O corporation or other private group entity	y 🖸 government
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):			
☐ Issue Fee	☐ A check in the amount	of the fee(s) is er	closed.	
☐ Publication Fee	☐ Payment by credit card	. Form PTO-203	B is attached.	
☐ Advance Order - # of Copies	 The Commissioner is hereby authorized by charge the required fee(s), or credit any overpayment. Deposit Account Number(enclose an extra copy of this form). 		overpayment, to	
Commissioner for Patents is requested to apply	the Issue Fee and Publication Fee (if any) or to re-	apply any previo	usly paid issue fee to the application identif	ied above.
(Authorized Signature)	(Date)			
NOTE; The Issue Fee and Publication Fee (other than the applicant; a registered attorne interest as shown by the records of the United	if required) will not be accepted from anyone by or agent; or the assignee or other party in States Patent and Trademark Office.		·	
This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, D.C 20231.				·
Under the Panerwork Reduction Act of 10	95 no nercons are required to respond to a			

collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,793	11/20/2001	Kazuyasu Ohashi	R2180.0113/P113	9125
24998	7590 02/04/2003		EXAMIN	ER
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP		HASAN, MOHA	AMMED A	
2101 L STREE			ART UNIT .	PAPER NUMBER
WASHINGTO	N, DC 20037-1526		2873	
			DATE MAII ED: 02/04/2003	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The patent term adjustment to date is 0 days. If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the term adjustment will be 0 days.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,793	11/20/2001	Kazuyasu Ohashi	R2180.0113/P113	9125
24998	7590 02/04/2003		EXAMINI	SR
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			HASAN, MOHAMMED A	
2101 L STREET WASHINGTON,			· ART UNIT	PAPER NUMBER
UNITED STATES			2873	
		DA	TE MAIL ED: 02/04/2003	

Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

			De
	Application No.	Applicant(s)	<u> </u>
`	09/988,793	OHASHI, KAZUYASU	
. Notice of Allowability	Examiner	Art Unit	
· ",	Mohammed Hasan	2873	
	<u> </u>		
The MAILING DATE of this communication appeall claims being allowable, PROSECUTION ON THE MERITS IS nerewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED or other appropriate comm IGHTS. This application is	in this application. If not included nunication will be mailed in due co	urse. THIS
1. This communication is responsive to 12/26/2002.			
2. The allowed claim(s) is/are <u>4 - 28, 31, 32, 36 - 38, 41, 43-</u>	<u>86</u> .		
3. The drawings filed on are accepted by the Examine	er.		
 Acknowledgment is made of a claim for foreign priority und a) All b) Some* c) None of the: 	der 35 U.S.C. § 119(a)-(d) o	or (f).	
1. Certified copies of the priority documents have	e been received.		
2. Certified copies of the priority documents have	e been received in Applicati	on No	
3. Copies of the certified copies of the priority do	cuments have been receive	ed in this national stage applicatio	n from the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
5. Acknowledgment is made of a claim for domestic priority u			
(a) The translation of the foreign language provisional a	• •		
5. Acknowledgment is made of a claim for domestic priority u	nder 35 U.S.C. §§ 120 and	/or 121.	
Applicant has THREE MONTHS FROM THE "MAILING DATE" or below. Failure to timely comply will result in ABANDONMENT of			
7. A SUBSTITUTE OATH OR DECLARATION must be subm NFORMAL PATENT APPLICATION (PTO-152) which gives reas			TICE OF
B. X CORRECTED DRAWINGS must be submitted.			
(a) ⊠ including changes required by the Notice of Draftsper1) ⊠ hereto or 2) □ to Paper No	son's Patent Drawing Revie	ew (PTO-948) attached	
(b) ☐ including changes required by the proposed drawing	correction filed , whi	ich has been approved by the Exa	ıminer.
(c) ☐ including changes required by the attached Examiner		•	
Identifying indicia such as the application number (see 37 CFR 1 of each sheet. The drawings should be filed as a separate paper	` ''		
 DEPOSIT OF and/or INFORMATION about the depoattached Examiner's comment regarding REQUIREMENT FOR T 			e the
Attachment(s)			
Notice of References Cited (PTO-892) ⊠ Notice of Draftperson's Patent Drawing Review (PTO-948) □ Information Disclosure Statements (PTO-1449), Paper No □ Examiner's Comment Regarding Requirement for Deposit of Biological Material	4∏ Intervie 6∏ Examin	of Informal Patent Application (PT ow Summary (PTO-413), Paper No ner's Amendment/Comment ner's Statement of Reasons for Allo	D
	Georgia Epps		

Supervisory Patent Examiner
Technology Center 2800

Application/Control Number: 09/988,793

Art Unit: 2873

DETAILED ACTION

Drawings

The drawing have been objected to by the Draftsperson under 37 CFR 1.84 or
 1.152 as indicated on the NOTICE RE PATENT DRAWINGS, PTO – 948.
 CORRECTION IS REQUIRED.

Allowable Subject Matter

- 2. Claims 4 28, 31, 32, 36 38, 41 and 43 86 are allowed.
- 3. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claim, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails teach a combination of all the claimed features as presented in independent claims 4, 7, 31, 41, 43 and 44, which include a zoom lens system comprising five lens groups having optical refractive power (+,-,+,+,+), an aperture diaphragm located in the third lens group, when a zooming second and fourth lens group move from short to long focal point ends, where a distance (D_{1w}) between the first and second lens band in the short focal length end arrangement distance (D_{1T}) between the first and second lens bands in the long focal point end arrangement, a distance (D_{3w}) between the third and fourth lens bands in the short

Application/Control Number: 09/988,793

Art Unit: 2873

focal point end arrangement, a distance (D_{3T}) between the third and fourth lens bands in the long focal point end arrangement substantially meet the following inequality: ($D_{3W} - D_{3T}$) / ($D_{1T} - D_{1w}$) > .3 (as in claim 4), the prior art fails to teach where a variance of an image surface caused by the smooth movements of second and fourth lens band is compensated by movement of the fifth lens band in a predetermined direction (as in claim 7, 31, 41, 43 and 44).

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (703) 306-0089. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 306-5515 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

MH February 2, 2003

Georgia Epps
Supervisory Patent Examiner

Technology Center 2800





Attachment for PTO-948 (Rev. 03/01, or earlier) 6/18/01

The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities - 37 CFR 1.85

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the Notice of Allowability. Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.

All changes to the drawings, other than informalities noted by the Draftsperson, MUST be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings MUST be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

Black ink. Color. Color drawings are not acceptable until petition is granted. Fig(s) Pencil and non black ink not permitted. Fig(s) Photographs may not be mounted. 37 CFR 1.84(e) Photographs may not be mounted. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) 21.6 cm by 27.9 cm (B1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11 Margins not acceptable. Fig(s) — Top (T) Right (R) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h) Color drawing changes. Partial views. 37 CFR 1.84(h) Solid blanck areas pale. Fig(s) Numbers and reference characters must be same direction as the view. 37 CFR 1.84(p)(2) Fig(s) Size of PAPER. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm Size: 8 1/2 x 11 Margins not acceptable. Fig(s) — Top (T) Right (R) Bottom (B) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h) REMINDER: Specification may require revision to correspond to drawing changes.	<u> </u>	M
Fig(s) beginning with number 1. Sheet(s) Views and labeled separately or properly 15. NUMBERING OF VIEWS. 37 CFR 1.84(u)	Black ink. Color. Cotor drawings are not acceptable until petition is granted. Fig(s) Pencil and non black ink not permitted. Fig(s) Photographs may not be mounted. 37 CFR 1.84(e) Photographs may not be mounted. 37 CFR 1.84(e) Poor quality (half-tone). Fig(s) TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) Erasures, alterations, overwritings, interlineations. folds, copy machine marks not accepted. Fig(s) Mylar, velum paper is not acceptable (too thin). Fig(s) SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 I/2 x 11 inches) All drawing sheets not the same size. Sheet(s) Drawings sheets not an acceptable size. Fig(s) MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: A1 Size Top 2.5 c	Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) 10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(i) Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) 11. SHADING. 37 CFR 1.84(m) Solid black areas pale. Fig(s) Solid black shading not permitted. Fig(s) Shade lines, pale, rough and blurred. Fig(s) Shade lines, pale, rough and blurred. Fig(s) Numbers. LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p) Numbers and reference characters not plain and legible. Fig(s) Figure legends are poor. Fig(s) Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1) Fig(s) English alphabet not used. 37 CFR 1.84(p)(2) Figs Numbers. letters and reference characters must be at lea. 32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) Lead lines cross each other. Fig(s) Lead lines cross each other. Fig(s) Lead lines cross each other. Fig(s) Lead lines missing. Fig(s) 14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(1) Views not numbered consecutively, and in Arabic nume beginning with number 1. Sheet(s) 15. NUMBERING OF VIEWS. 37 CFR 1.84(u) Views not numbered consecutively, and in Arabic nume beginning with number 1. Fig(s) 16. CORRECTIONS. 37 CFR 1.84(w) Corrections not made from prior PTO-948 dated 17. DESIGN DRAWINGS. 37 CFR 1.512 Solid black shading not used for color contrast.

REVIEWER Draftsman: Son Lam	DATE 01/30/03	TELEPHONE NO.
(703)308-0366		
9		
ATTACHMENT TO PAPER NO		